

L 35840-66 EWT(1)

ACC NR: AP6015344

SOURCE CODE: UR/0119/66/000/005/0024/0026

AUTHOR: Vaynberger, G. Ya. (Engineer); Vasil'yev, Yu. K. (Candidate of technical sciences); Karpenko, B. K. (Candidate of technical sciences); Kabkov, G. Ya. (Engineer); Larchenko, V. I. (Engineer); Rybal'chenko, Yu. I. (Engineer) a1
B

ORG: none

TITLE: Stepping motors ⁹

SOURCE: Priborostroyeniye, no. 5, 1966, 24-26

TOPIC TAGS: stepping motor, micromotor, servomotor / RShD gear stepping servomotor, EShD stepping servomotor ²⁴ ₁₀

ABSTRACT: A very brief description is supplied of (1) RShD reactive-rotor gear stepping motor intended for smaller steps and higher speeds and (2) EShD

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UDC: 621.313.13 - 133.4

L 35840-66

ACC NR: AP6015344

permanent-magnet-rotor two-stator stepping motor intended for larger steps, higher torques, and quick response. They were developed in the Kiev Institute of Automatics. An RShD-10-FD-IV motor is intended for operation at a fixed frequency of 100 ± 2 cps; it is equipped with an electromagnetic detent and a damper. Technical characteristics of eight RShD and five EShD types are tabulated. The RShD types have: maximum static torque, 140—4500 g·cm; maximum operating speed, 100—3500 steps per sec; power consumption, 13—300 w. The EShD types have: maximum static torque, 1000—18000 g·cm; maximum operating speed, 500—1600 steps per sec; power consumption, 250—1000 w. Orig. art. has: 3 figures, 2 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 004

ms
Card 2/2

VAYNBERGER, Isaak Matveyevich; VASENIN, Aleksandr Yermolayevich;
IZRAILIT, Lev Abramovich; RZHETSKIY, Dmitriy Borisovich;
SPORIUS, Eduard Alekseyevich; TIKHONOV, Vasilii Fedorovich;
FAYNSHTEYN, Vladimir Maksovich; LAMM, I.A., otv. red.;
SAKHAROV, Ye.D., red.

[Mechanization and automation of mail processing operations]
Mekhanizatsiia i avtomatizatsiia obrabotki pochty; informa-
tsionnyi sbornik. Moskva, Izd-vo "Sviaz'," 1964. 77 p.
(MIRA 17:6)

VAYNBLAT, A.B.

Upper Permian and Triassic sediments of the Kenkiyak dome.
Trudy VNIGRI no.190:328-338 '62. (MIRA 16:1)
(Kenkiyak region--Geology, Stratigraphic)

71
BESKOV, B.A.; GERONIMUS, B.Ye.; DAVYDOV, V.N.; KREST'YANOV, M.Ye.;
MARKVARDT, G.G.; MININ, G.A.; Prinimal uchastiye TAMAZOV,
A.I.; VAYNBLAT, E.G., inzh., retsenzent; KRUGLYAKOV, F.Ye.,
inzh., retsenzent; KUCHMA, K.G., kand. tekhn.nauk,
retsenzent; LOMAZOV, D.V., kand. tekhn. nauk, retsenzent;
SLUTSKIY, Z.M., inzh., retsenzent; FRADKIN, I.S., inzh.,
retsenzent; YUSHKOV, P.K., inzh., retsenzent; PERTSOVSKIY,
L.M., inzh., red.; USENKO, L.A., tekhn. red.

[Design of electric railroad power supply systems] Proektiro-
vanie sistem energosnabzheniia elektricheskikh zheleznnykh do-
rog. [By] B.A.Beskov i dr. Moskva, Transzheldorizdat, 1963.
470 p.
(MIRA 17:2)

VAYNBLAT, M.M.

Use and installation of aluminum conductors in the petroleum
industry. Energ.biul. no.6:1-6 Je '56. (MLBA 9:8)
(Aluminum) (Electric wiring)

S/129/61/000/007/010/016
E021/E135

AUTHORS: Gerasim, S.S., Candidate of Technical Sciences, and
Vavnblat, Yu.M., Engineer

TITLE: Coarse-grained rim in extruded components of
aluminium alloys

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
1961, No.7, pp. 38-43

TEXT: The method of hot extrusion of aluminium alloys, which
is widely used, often gives rise to a coarse grained recrystallized
rim on heating and quenching the extruded component. In this zone
the strength of the material is considerably lowered and cracks
can form more easily. A study was therefore made of the formation
of the coarse grained rim on Avial type alloys. The chemical
compositions (%) of the aluminium base alloys used in the
investigation are given in the table (1 - Avial, 5 - Aluminium).
Rods 100 mm in diameter were extruded from continuously cast
billets 320 mm in diameter, the billet temperature being 470 °C
and the chamber temperature 400 °C. Specimens were cut from the
rod and some of them were subjected to quenching from 500 - 590°C.
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Coarse-grained rim in extruded

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The hardness, electrical resistance, solid solution lattice parameter, texture and microstructure of samples after extrusion and samples after heat treatment were determined. The obtained microphotos show that the secondary phase in the periphery was less dispersed after extrusion than in the centre. The lattice parameter of the solid solution in the peripheral zone was 0.0012 kX greater than in the centre, the electrical resistance was 2 - 3% lower, and the hardness lower by nine Hg units. The texture in the centre was $\langle 111 \rangle$ and $\langle 100 \rangle$, and in the peripheral zone $\langle 211 \rangle$ with weaker $\langle 111 \rangle$ and $\langle 100 \rangle$. After quenching from 518 °C there was no substantial difference in physical properties or lattice parameter. The main difference was in the structure. At the back end of the rod there was a coarse grained peripheral zone 20 mm wide gradually narrowing to 1 mm at the front. The width of the zone increased with increase in annealing time (Fig.2a; rim width mm vs. time, mins, annealing at 518 °C) and with increase in annealing temperature (Fig.2b). The coarse grained rim is formed because of non-uniform conditions of growth of the nuclei of recrystallisation arising in the process of extrusion. This is connected with non-uniform

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Coarse-grained rim in extruded

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decomposition of solid solution and non-uniform distribution of dispersed phases. Ye.M. Miklashevich participated in the experimental work. There are 4 figures, 1 table and 5 Soviet references. ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

Table

Alloy No.	Material	Chemical composition, %			
		Cu	Mg	Mn	Si
1	Avial	0.49	0.76	0.39	0.96
2		0.50	0.77	0.10	0.97
3		0.33	1.24	0.01	1.02
4	Aluminium	0.59	1.25	0.35	1.07
5		0.01	0.01	0.01	0.05

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S/129/62/000/011/004/007
E193/E383

AUTHORS: Gorelik, S.S., Candidate of Technical Sciences,
Vaynblat, Yu.M. and Malysheva, E.A., Engineers

TITLE: The role of zonal stresses in the formation of coarsely-
crystalline surface layers during heating for solution-
treatment of extruded aluminium alloys

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
no. 11, 1962, 21 - 23

TEXT: The fact that solution-treatment of extruded, age-
hardenable aluminium alloys is accompanied by excessive grain growth
in the surface layers has been attributed to more intensive decom-
position of the solid solution in these regions. It has also been
postulated that the excessive grain growth can be affected by the
type and magnitude of residual stresses in extruded material. If
the decomposition of the solid solution is accompanied by a decrease
in its specific volume, the transformation should be accelerated in
the regions of compressive residual stresses; the rate of decom-
position, accompanied by expansion, should be accelerated in regions
of tensile residual stresses. The core and the surface layer of
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S/129/62/000/011/004/007
E193/E383

The role of zonal stresses

extruded materials represent, respectively, zones of compressive and tensile residual stresses. In alloys in which the Al_6Mn phase is precipitated on ageing, decomposition of the solid solution is accompanied by an increase in its specific volume. The residual tensile stresses in the surface layer should, therefore, promote excessive grain growth. That such, in fact, is the case was proved by the present authors by experiments conducted on the alloy, avial (0.36% Cu, 0.63% Mg, 0.30% Mn, 0.31% Fe, 0.84% Si, 0.05% Zn and 0.05% Ti). A shape of an asymmetrical cross-section was extruded through a die so designed that the tensile residual stresses on one side of the profile were much larger than on the other; this resulted also in the shape curving up as it left the die. The distribution, type and magnitude of these stresses were changed in the next series of experiments, in which a guide rail was applied to prevent the curving up of the extruded shape. Metallographic examination of shapes extruded under various conditions showed that the outer zone of coarse grains formed in the extruded material during solution-treatment reflected the changes in the residual stresses. The more extensive was the zone of the residual tensile

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The role of zonal stresses ...

S/129/62/000/011/004/007
E193/E383

stress, the greater was the thickness of the surface. coarsely-granular layer, the grain size in this layer increasing with increasing magnitude of the residual tensile stresses in this region. There are 2 figures.

ASSOCIATION: Moskovskiy institut stali i splavov
(Moscow Institute of Steel and Alloys)

Card 3/3

GORELIK, S.S., kand.tekhn.nauk; VAYNBLAT, Yu.M., inzh.; MALYSHEVA, E.A.,
inzh.

Effect of pressure in avial alloy products. Metalloved. i term.
obr. met. no.12:48-49 D '62. (MIRA 16:1)

1. Moskovskiy institut stali i splavov.
(Aluminum alloys--Metallography) (Pressure)

VAYNBLAT, Yu.M.; KOROBOV, O.S.

Nature of fan-type crystallization during the continuous casting
of "ATSM" alloy ingots. Fiz. met. i metalloved. 19 no.3:418-423
Mr '65. (MIRA 18:4)

VAYNBLAT, Ya.M.; GORFLIK, S.S.; GRANOVSKIY, Ye.B.

Effect of heat treatment on certain properties and the structure
of the extruded AMgo alloy. Izv. vys. ucheb. zar., tsvet. met.
8 no.5:128-130 '65. (MIRA 18:10)

1. Moskovskiy institut stali i splavov, kafedra materialovedeniya
poluprovodnikov.

L 5378-66 EWT(m)/EWA(d)/T/EWP(t)/EWT(k)/EWP(z)/EWP(b)/EWA(c) IJP(c)

ACC NR: AP5027100 MJW/JD/HW

UR/0149/65/000/005/0128/0130
669.715

AUTHOR: Vaynblat, Yu. M.; Gorelik, S. S.; Granovskiy, Ye. B.
44.55 44.55 44.55

TITLE: Effect of heat treatment on certain properties and structure of the hot-pressed aluminum alloy AMg6
44.55, 27 16

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 5, 1965, 128-130

TOPIC TAGS: metal heat treatment, metal pressing, aluminum alloy, crystal orientation

ABSTRACT: Heat treatment (hardening + aging) of certain hot-pressed Al alloys markedly increases the ultimate strength and yield strength of the products fabricated from these alloys, in the direction of pressing as well as to a smaller extent, in the transverse direction. The attendant difference in longitudinal and transverse properties is often termed the pressing effect. Gorelik et al. (Metallovedeniye i termooobrabotka, no. 12, 48 (1962) in their study of avial show that the pressing effect is attributable to the oriented distribution of the excess phase in the α -solid solution of Mg or Mn in Al, which hardens the alloy and impedes the processes of recrystallization. Accordingly, the applicability of this theory is tested in the.

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L 5378-66

ACC NR: AP5027100

present investigation with respect to the AMg6 aluminum alloy. Rods of AMg6, pressed under industrial conditions, were heat-treated (heating to 450°C for 0.5 hr, cooling in water) and aged (heating to 150°C for 16 hr). Mechanical properties and their anisotropy in the rods were investigated following every individual stage of this treatment, in specimens cut out parallel and counter to the direction of the pressing. It was thus established that the anisotropy of mechanical properties following pressing and heat treatment is greater than following pressing alone. Radiometallographic phase analysis indicates that the specimens after pressing contain a number of phases in addition to the solid solution. The phase Mg_2Al_3 , which disappears after hardening and reappears on aging, is the most distinctly expressed. Following aging, the textural maxima on the phase lines are disposed at virtually the same angles as the maxima of the solid-solution lines corresponding to closely adjoining planes. This confirms the dependence of phase orientation on matrix texture, which indicates that the anisotropy of mechanical properties in the AMg6 alloy is chiefly conditioned by the oriented segregations of the disperse phase in the textured matrix. Orig. art. has: 1 figura, 2 tables.

ASSOCIATION: Moskovskiy institut stali i spлавov. Katedra materialovedeniya poluprovodnikov (Moscow Institute of Steel and Alloys, Dept for Material Science of Semiconductors)

SUBMITTED: 10Oct64

ENCL: 00

SUB CODE: MM, SS

NO REF SOV: 003

OTHER: 002

2/2

L 3159-66 EWT(m)/EWP(w)/T/EWP(t)/EWP(b) JD

ACCESSION NR: AP5008788

S/0126/65/019/003/0418/042?
532.72+539.5

30
B

AUTHOR: Vaynblat, Yu. M.; Korobov, O. S.

TITLE: The nature of fan crystallization in continous casting of ingots of ATsM alloy

SOURCE: Fizika metallov i metallovedeniya, v. 19, no. 3, 1965, 418-423

TOPIC TAGS: aluminum alloy, fan crystallization, continuous casting

ABSTRACT: The fan-type structure which appears during continuous casting of aluminum alloys reduces the ductility of the material in pressure working and causes cracks to appear during forging and rolling. V. I. Dobatkin ("Aluminum Alloy Ingots," Moscow, *Metallurgizdat*, 1960), who was the first to detect fan crystallization in continuously cast ingots, found that the fan structure is a variation of the columnar structure and forms at locations where the overheated melt comes in contact with a crystallization surface. A necessary condition for the appearance of a fan structure is a large temperature gradient in the liquid phase. A. A. Popov ("Phase Transformations in Metals and Alloys," Moscow, *Metallurgizdat*, 1963, p 110) discovered

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L 3159-66

ACCESSION NR: AP5008788

that fan crystals are lamellar dendrites, the branches of which grow along axes $\langle 110 \rangle$ and $\langle 123 \rangle$. In this work it was found that the lamellar branches of fan crystals have a twin structure and develop primarily along axis $\langle 110 \rangle$. Twin crystals with elements $K_1 = (111)$; $n_1 = [112]$ form during side growth of the lamellar branches of the dendrites. It is shown that during continuous casting the fan crystals grow vertically upward, forming a region with a predominant $\langle 110 \rangle$ orientation. Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 13Apr64

ENCL: 00

SUB CODE: MM

NO REF SOV: 009

OTHER: 001

Card 2/2 *md*

BER, L.B.; VAYNBLAT, Yu.M.

Method of quantitative absorption X-ray micrography. Zav. lab.
31 no.10:1210-1211 '65. (MIRA 19:1)

L 46319-66 EWT(m)/I/EWP(v)/ETI/EWP(k) LJP(c) JD

ACC NR: AP6019644

(N)

SOURCE CODE: UR/0149/66/000/003/0123/0127

AUTHOR: Vaynblat, Yu. M.; Rodina, I. B.

ORG: none

TITLE: Effect of the substructure on the yield point of alloy D16 ⁴

SOURCE: IVUZ, Tsvetnaya metallurgiya, no. 3, 1966, 123-127, and insert facing p. 123

TOPIC TAGS: aluminum base alloy, copper containing alloy, magnesium containing alloy, manganese containing alloy, iron containing alloy, silicon containing alloy, grain structure, crystal structure analysis

ABSTRACT: The role of the substructure formed upon polygonization after small degrees of deformation when the texture of the alloy is not changed, was investigated. A rod of alloy D16 (composition in %: 4.03 Cu, 1.35 Mg, 0.5 Mn, 0.08 Fe, 0.15 Si, remainder Al) 20 mm in diameter obtained by hot extrusion was subjected to cold drawing with 20% deformation and then quenched from 500C (holding 1 hr). After aging for four days at room temperature the rod was cut into five parts, one of which was left undeformed and the others were deformed by tension by 1, 3, 6, and 9%. The specimens for investigating the substructure were cut perpendicular to the rod axis. A transverse section was subjected to fine emory cloth and then electro-

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11
B

L 46319-56

ACC NR: AP6019644

polishing to remove the workhardened layer. The substructure of the specimens was investigated by the diffraction microradiography method. ² The study of the effect of the polygonized structure on the mechanical properties of annealed and aged alloy D16 showed that in both cases hardening is determined only by the density of the dislocations and not by the type of their distribution. At a dislocation density characteristic of polygonization after cold deformation, the substructure does not have a substantial effect on the mechanism of natural aging. The rate of polygonization in the alloy markedly dropped in comparison with pure aluminum. ₂₁ Orig. art. has: 1 table and 4 figures.

SUB CODE: 11/ SUBM DATE: 20Feb65/ ORIG REF: 005/ OTH REF: 005

Card

2/2 *ecp*

ACC NR: AP6033047

SOURCE CODE: UR/0126/66/022/002/0204/0209

AUTHOR: Vaynblat, Yu. M.; Belova, E. P.; Sagalova, T. B.

ORG: None

TITLE: X-ray analysis of the fine structure of AK8 aluminum alloy after hot deformation and subsequent heating

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 2, 1966, 204-209

TOPIC TAGS: x ray analysis, aluminum alloy property, fine structure, thermal stability, metal deformation, metal recrystallization

ABSTRACT: The authors made a detailed study of the substructure of a hot pressed rod at various points of its cross section and substructure variation during heating. Data were also obtained on the thermal stability of the rod structure during hot deformation. The rod made from AK8 alloy was 50 mm in diameter and was pressed with a drawing factor of $\lambda=15$ at 430°C. The outer layer of the rod (3 to 5 mm thick) recrystallized during heating prior to quenching at 503°C for one hour. Under these conditions, a coarse crystalline annulus formed around the rod. The structure was studied at the center of the cross section, at the center of the recrystallized annulus and 0.5 mm from the surface. This included the original specimen, after heating at 200, 300, 400, 450, 480, 500, 510, 530 and 540°C with subsequent cooling in water. The

UDC: 539.292:548.73+548.53

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ACC NR: AP6033047

substructure was studied by the x-ray microbeam method. The results show that rods made from AK8 alloy have a polygon-type structure with clear subgranular boundaries. The average subgrain is 3μ . Heating brings about additional improvement of the substructure, division of the subgrain into uniformly stressed blocks and subgranular coalescence forming recrystallization nuclei. The grain in the annular zone of primary recrystallization follows the deformation grain. This shows that the mechanism responsible for forming recrystallization nuclei in the external zone and inside the rod are not the same. The authors suggest that this difference is due to grain type. Orig. art. has: 3 figures, 4 formulas.

SUB CODE: 11/ SUBM DATE: 12Jul65/ ORIG REF: 004/ OTH REF: 008

Card 2/2

SOURCE CODE: UR/0370/66/000/006/0097/0100

ACC NR: AP6036440

AUTHORS: Lokshin, F. L. (Moscow); Vaynblat, Yu. M. (Moscow); Korobov, O. S. (Moscow);
Shakhanova, G. V. (Moscow)

ORG: none

TITLE: Investigation of the decomposition kinetics of a supersaturated solid solution in alloy D-16

SOURCE: AN SSSR. Izvestiya. Metally, no. 6, 1966, 97-100

TOPIC TAGS: aluminum alloy, electric resistance, thermal stability / D-16 aluminum alloy

ABSTRACT: The decomposition kinetics of the supersaturated solid solution in alloy D-16 (4.0% Cu, 1.35 % Mg, and 0.5% Mn) was investigated. The investigation supplements the results of K. S. Kirpichnikov and V. I. Kulakov (Osobennosti stareniya spila D-16. Termicheskaya obrabotka i svoystva splavov. Tr. MATI, 1962, No. 55, 1). The decomposition kinetics was studied by determining the change in the electrical resistance of the specimens as a function of time and temperature. The experimental procedure followed is described by M. A. Shtremel', I. N. Kidin, and A. V. Panov (Zavodskaya laboratoriya, 1960, No. 8, 1009). The experimental results are presented graphically (see Fig. 1). It was found that the changes in the hardness, strength limit, and creep in alloy D-16 occur at later stages in the decomposition

UDC: 669.715

Cont. 1/2

ACC NR: AP6036440

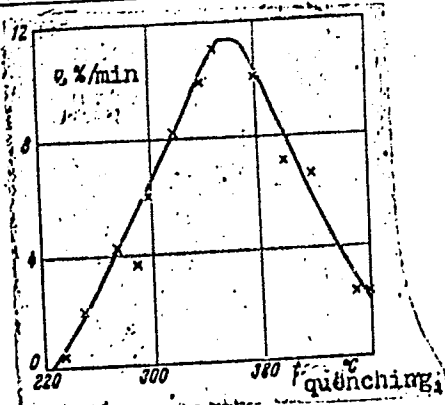


Fig. 1. Dependence between the rate of change in the electrical resistance of alloy D-16 and the quenching temperature

process of the solid solution than the change in the electrical resistance of the latter. Nevertheless, it is asserted that a proper use of electrical resistance-time curves does afford a method for determining the optimum cooling rate of D-16 alloys. Orig. art. has: 5 graphs.

SUB CODE: 11/
20/

SUBM DATE: 05Apr65/

ORIG REF: 004

Card 2/2

VAYNBOYM, David Iosifovich

Dugovyye svarochnyye avtomaty. Leningrad, Sudprom-
giz, 1956.
290 p. illus., diagrs., graphs, tables. 23 cm.
Bibliography: p. 288-289

PHASE I BOOK EXPLOITATION

SOV/3997

Vaynboym, David Iosifovich, Engineer

Dugovaya privarka shpilek (Stud Arc Welding) Leningrad, 1959. 22 p. (Series: Leningradskiy dom nauchno-tekhnicheskoy propagandy. Obmen peredovym opytom. Seriya: Svarka i payka metallov, vyp. 5) 6,500 copies printed.

Sponsoring Agencies: Leningradskiy dom nauchno-tekhnicheskoy propagandy; Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR.

Ed.: Z.M. Ryzhik, Engineer; Tech. Ed.: D.P. Freger.

PURPOSE: This booklet is intended for welders.

COVERAGE: The author reports on his research work which led to an improvement of the stud arc welding method and to the development of new working processes and welding equipment. No personalities are mentioned. There are 4 Soviet references.

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SOV/3997

Stud Arc Welding

TABLE OF CONTENTS: There is no table of contents; the booklet is divided into the following sections:

- | | |
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| 1. Stud Welding Devices | 3 |
| 2. Technique of Welding Studs on Low-Carbon Steel | 11 |
| 3. Stud Arc Welding on Alloyed Steels, Cast Iron, and Nonferrous Metals | 21 |

References

AVAILABLE: Library of Congress

Card 2/2

VAYNBOYM, David Iosifovich, inzh.; RYZHIK, Z.M., inzh., red.; FREGER,
D.P., tekhn.red.

[Electric arc stud welding] Dugovaia privarka shpilek. Leningrad,
1959. 22 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy.
Obmen передовым опытом. Seria: Svarka i paika metallov, vyp.5).
(MIRA 13:3)

(Electric welding)

1. VAYNBOYM, D.E.
2. USSR (600)
4. Technology
7. Automatic and semi-automatic welding under flux. Leningrad, Sudpromgiz, 1952

9. Monthly List of Russian Accessions, Library of Congress, February, 1953. Unclassified.

VAYNBOYM, David Iosifovich; FEDER, Ye.S., otvetstvennyy redaktor;
ALEKSEYEVA, M.N., redaktor; FRUMKIN, P.S., tekhnicheskiiy redaktor;
DLUGOKANSKAYA, Ye.A., tekhnicheskiiy redaktor

[Automatic arc welding equipment] Dugovye svarochnye avtomaty.
Leningrad, Gos. soiuзное izd-vo sudostroit. promyshl, 1956.
290 p. (MLRA 10:4)

(Electric welding)

AUTHOR: Vaynboym, D.I., Engineer

SOV/135-58-12-11/20

TITLE: The "UDSSh-4" Installation for Arc Welding of Studs (Ustanovka "UDSSh-4" dlya dugovoy privarki shpilek)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 12, pp 32-33 (USSR)

ABSTRACT: Information is given on new equipment for semi-automatic welding of studs. The following devices are described: 1) the "UDSSh-4" installation, the characteristic features of which are stable burning of the arc and the possibility of welding studs up to 20 mm in diameter, under flux or with the use of protecting rings. The new device should be widely introduced to practical use as it enables studs to be welded in any position and also through wood layers, insulation etc. Mass production of the device was started in 1958 by the "Iskra" plant of the Sverdlovsk sovnarkhoz; 2) the PPSH-1 pistol for arc welding of 4 to 12 mm diameter studs with the use of shaped protecting rings. The arc excitation is caused by inducing short circuit current through a pointed prolongation of the stud or through a current-conducting ring. This simpli-

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The "UDSSh-4" Installation for Arc Welding of Studs SOV/135-58-12-11/20

fies the pistol design and makes the welding of long studs possible. There are 3 photos.

ASSOCIATION: VNIIESO

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SOV-135-58-2-9/18

AUTHOR: Vaynboym, D. I., Engineer

TITLE: Cyclic Starting of the Welding Arc by Breaking Contact of the Electrode (Tsiklichnoye возбуждениye svarochnoy dugi otryvom elektroda)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 2, pp 32 - 35 (USSR)

ABSTRACT: The described new method of cyclic arc starting by breaking contact of the electrode was developed by the author for the purpose of improving the excitation of the welding arc. The cycle consists of three stages: 1) preliminary passing of d. c. through the electrode, 2) excitation of an auxiliary low-ampere d. c. arc by breaking contact the electrode; 3) transition of the auxiliary arc into the welding arc after switching-in direct or alternating current. Experiments were carried out on the "PPSh-2" laboratory device (electric circuit shown in fig. 4). The new method ensures stable arc

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SOV-135-58-2-9/18

Cyclic Starting of the Welding Arc by Breaking Contact of the Electrode

starting and can be applied in automatic welding of studs, plug welds, etc. There is 1 photo, 2 electric circuit diagrams, 2 tables, 4 oscillograms and 4 Soviet references.

ASSOCIATION: VNIIESO

Card 2/2

1. Arc welding--Electrodes

VAYNB-ym, D.I

135-58.6-13/19

AUTHOR: Vaynboym, D.I., Engineer

TITLE: Modernization of Attaching Studs by Arc Welding (Usover-shenstvovaniye dugovoy privarki shpilek)

PERIODICAL: Svarochnoye Proizvodstvo, 1958, Nr 6, pp 36-41 (USSR)

ABSTRACT: Semi-automatic welding with welding pistols "UPSh-1" and "A-187" is the most widely used method of attaching studs in the USSR industry, but the pistols are obsolete, permit only welding under flux in bottom position, and the quality of connections is not satisfactory on studs having diameters of over 10 mm. The author carried out a study at VNIIESO in 1954-56 and developed a new, improved, technology for open arch welding steel as well as non-ferrous studs, in shielding gas, under flux, and with the use of smooth or shaped shielding rings (shown in schematic drawing, Figure 6). The technology of each of the mentioned methods is given in detail and illustrated by schematic drawings and oscillograms. The following conclusions are made: 1) Stable excitation of welding arc by tearing off the stud can be achieved by the use of an auxiliary low-amperage d.c. arc. 2) In welding with shaped rings, the arc can be excited by special protusion on the

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Modernization of Attaching Studs by Arc Welding

135-58-6-13/19

stud end, or by the use of conducting rings with a negative temperature coefficient of resistance. 3) Porcelain shielding rings and rings on titanium dioxide base assure the best stability of the arc. 4) Studs must be sunk smoothly into the welding puddle in the process of burning of the arc. This brings about more satisfactory crystallization of the puddle and a better weld. 5) Short-circuit current passed through the weld joint slows down the cooling of metal adjacent to the weld. There are 9 figures and 8 Soviet references.

ASSOCIATION: VNIIESO

AVAILABLE: Library of Congress

Card 2/2

25(1)

SOV/135-59-3-15/24

AUTHOR: Vaynboym, D.I., Engineer

TITLE: Technique of Arc Welding Stads with Free
and Forced Formation of the Seam Metal (Tekhnologiya dugo-
voy privarki shpilek so svobodnym i prinuditel'nyy formiro-
vaniyem metalla shva)

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 3, pp 31-35 (USSR)

ABSTRACT: Information is given on an experiment carried out at VNIIESO with low-carbon steel (0.3 % C) pins and rimming "St.3" steel pins. It was concluded that steel with 0.3 % C can be recommended for use. Good results were obtained in welding in argon (for shielding gas) and with the use of porcelain, flux-porcelain, flux, and electro-conductive shielding rings. A shielding ring design with crown surface on the bottom side facilitating the escape of gas, slag and metal was used. The joints obtained with shielding rings were well shaped and required no further finish. The mechanical properties of the weld metal were equal to the properties of the pin metal. Practical technological recommendations are given. Details of the chemical composition of the

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SOV/135-59-3-15/24

Technique of Arc Welding Studs
Formation of the Seam Metal

with Free and Forced

shielding rings are included. Chemical Engineers N.P. Trukhina and V.P. Lifonenko participated in experiments. There are 3 photographs, 3 graphs, 2 tables and 8 references, 6 of which are Soviet, 1 English and 1 unidentified.

ASSOCIATION: VNIIESO

Card 2/2

SOV/135-59-9-13/23

18(5,7)

AUTHOR:

Vaynboym, D. I., Engineer

TITLE:

Arc Welding of Studs to Alloyed Steels, Cast Iron and Non-Ferrous Metals

PERIODICAL:

Svarochnoye proizvodstvo, 1959, Nr 9, pp 35-37 (USSR)

ABSTRACT:

The author presents a report on experiments, made to find new possibilities of using arc welding. Studs of different materials were welded to alloyed steels, cast iron and non-ferrous metals. The experiments were made in the welding laboratories of Severozapadnyy zaochnyy politekhnicheskiy institut (North-Western Correspondence Course Polytechnic Institute). Studs with a diameter of 8-12 mm were welded. The materials were: steel MSt-3, brass 262, copper M1, aluminum Al and aluminum alloy AMg6T. The welding was done by direct current in different ways: by open arc; within argon; under flux. For the welding a device type UDSSh-5 and a welding transformer type PS-500 were used. The table shows the chemical composition of weld metals, resulting from the experiments. The experiments show the possibility of

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SOV/135-59-9-13/23

Arc Welding of Studs to Alloyed Steels, Cast Iron and Non-Ferrous Metals

arc welding studs of steel and non-ferrous metals to alloyed steel, cast iron, bronze, copper and brass. They also indicate the possibility of welding aluminum studs to light-weight alloys within argon, using a porcelain protective ring. There are 2 photographs, 1 table and 3 English references.

Card 2/2

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VAYNBOYM, D.I., kand. tekhn. nauk

The UFTP-2 unit for electric rivet welding. Svar. proizv. no.2:
34-35 F '65. (MIRA 18:3)

1. Severo-Zapadnyy zaochnyy politekhnicheskly institut.

RAZUVAYEV, Grigoriy Alekseyevich, laureat Leninskoy premii; LATYAYEVA, Viktoriya Nikolayevna, kand.khim.nauk; VAYNBOYM, I.B., red.; ATROSHCHENKO, L.Ye., tekhn.red.

[Free radicals in chemistry] Svobodnye radikaly v khimii. Moskva, Izd-vo "Znanie," 1960. 39 p. (Vsesoiuznoe obshchestvo po rasprostraneniю politicheskikh i nauchnykh znaniy. Ser.9, Fizika i khimiya, no.23). (MIRA 14:1)

1. Chlen-korrespondent AN SSSR (for Razuvayev).
(Radicals (Chemistry))

40197

S/135/62/000/009/002/004
A006/A101

1.2300

AUTHOR: Vaynboym, D. I., Engineer

TITLE: Electric rivet-welding in carbon dioxide

PERIODICAL: Svarochnoye proizvodstvo, no. 9, 1962, 26 - 28

TEXT: Information is given on experimental investigation of rivet-welding in carbon dioxide including welding conditions, mechanical strength and structural analysis of weld joints. Low carbon and alloy-steel plates 8 - 10 and 20 mm thick were rivet-welded with: CB 10TC (Sv-10GS) electrode wire, 0.8 - 2 mm in diameter; at 120 - 600 amps current 26 - 50 v arc voltage and 1 - 9 sec welding time. The welding conditions determine stability of arc excitation and burning, and the shape of the spot weld. The penetration depth may attain 20 mm; this is 20 - 30% more than in submerged arc welding: it is favorably influenced by the increased current intensity and extended time of arc burning. Higher arc voltage improves the rivet shape. Stable arc excitation and burning is assured by power supply from a generator with rigid characteristics. Electric rivet-welding may be carried out in any position. The properties of the welded joint are strongly influenced by rapid cooling and by changes in the structure of the weld and weld-adjacent metal. In rivet-welding low-carbon steel rapid cooling causes an increase of the hardness

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Electric rivet-welding in carbon dioxide

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A006/A101

and durability of the weld and weld-adjacent metal. A slight decrease of ductility takes place. In the case of carbon and alloyed steels metastable structure may be formed and splitting of the metal may occur. Ductility may decrease considerably. Shearing tests proved that rivet-welded joints under carbon dioxide were considerably stronger than flux-welded joints, withstanding up to 450 kg loads at 0.5 mm thickness and up to 5,400 kg for 6 mm thick metal. The described method is automated and therefore less labor consuming, yields improved welds and reduces costs of welded structures. Welding conditions to be used are recommended in a table. There are 6 figures and 4 tables. K

Card 2/2

VAYNBOYM, David Iosifovich; RYZHIK, Z.M., red.; FOMICHEV, A.G., red.
izd-va; BELOGUROVA, I.A., tekhn. red.

[Electric plug welding under flux in an atmosphere of protective
gases] Svarka elektrozaklepkami pod fliusom i v srede zashhit-
nykh gazov. Leningrad, 1962. 46 p. (Leningradskii dom nauchno-
tekhnicheskoi propagandy. Obmen peredovym opytom. Seria: Svarka
i paika metallov, no.3) (MIRA 16:2)
(Electric welding) (Protective atmospheres)

VAYNBOYM, David Iosifovich; KARMISHENSKIY, A.N., red.; GRIGOR'YEVA,
I.S., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Automation of the welding of insertion parts in reinforced
concrete elements] Avtomatizatsiia svarki zakladnykh chastei
zhelezobetonnykh konstruktsii. Leningrad, 1962. 24 p. (Le-
ningradskii dom nauchno-tekhnicheskoi propagandy. Obmen pere-
dovym opytom. Seriia: Stroitel'naia promyshlennost', no.19)
(Reinforced concrete) (Welding) (MIRA 16:2)

S/135/63/000/004/010/012
A006/A101

AUTHOR: Vaynboym, D. I., Engineer

TITLE: On the design of electric riveting machines for welding in shielded atmosphere

PERIODICAL: Svarochnoye proizvodstvo, no. 4, 1963, 33 - 36

TEXT: In electric rivet welding, arc ignition, time of burning and length of the arc are important factors in the process. The welding time is controlled best with an electronic time relay; satisfactory arc ignition is secured by supplying the electrode wire at voltages with high current intensity. The required arc length is obtained by separate switching off the wire supply motor and the welding current source, or by the electrodynamic braking of d-c motor. These conditions were not assured in previously used control devices attached to semi-automatic machines ПДМММ -500 (PDSM-500) and ПШМ -5 (PSh-5). Time control device PB9-7-1A (RVE-7-1A), designed at "Elektrik", is an attachment to a hose semi-automatic machine, which secures separate switching-off of welding wire and welding current supply. Instead of this standard type machine, a two-position time

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S/135/63/000/004/010/012
ACC6/A101

On the design of electric riveting machines for...

relay may be used for electric rivet welding with the use of flux on a semi-automatic unit. The advantage of using flux is the possibility of feeding the arc with a-c. However, electric rivet welding in CO_2 is more efficient and promising. For this purpose the author has developed an electric rivet welding machine on the basis of semi-automatic device ПШП-10 (PShP-10). The redesigning of the welding torch for electric rivet welding consists merely in the use of a special nozzle whose supporting surface should correspond to that of the part to be welded. The torch contains a feed mechanism which supplies the electrode wire, 0.8 - 2.0 mm in diameter, at a speed of up to 11 m/min; the diameter of the feed roll is 20 mm. The operation of the electric circuit in this machine is described. Carbon and alloyed steel thin-sheet structures are welded with tungsten electrodes in argon atmosphere on a УДТС-5 (UDTS-5) machine. The arc is excited by an oscillator, which is inconvenient in portable devices. In the УДТН-1 (UDTN-1) machine developed at the SZPI laboratory, the arc is excited without using an oscillator, but by a low-power d-c pilot arc. This machine secures stable and high-quality welding and can be recommended for cases when welding with consumable electrodes is difficult. There are 6 figures.

ASSOCIATION: Severo-Zapadnyy zaachnyy politekhnicheskii institut (North-West Polytechnic Correspondence Institute)

Card 2/2

VAYNBOTM, D.I., inzh.; GOL'DFARB, V.M., kand. fiziko-matematicheskikh nauk

Calculating the depth of the fusion zone in plug welding
with carbon dioxide. Svar. proizvod. no.8:8-13 Ag '63.
(MIRA 17:1)

1. Severo-Zapadnyy zaachnyy politekhnicheskii institut.

✓ AINBOYM, P.I.

115-5-27/44

AUTHOR: Vaynboym, P.I.

TITLE: Measuring the Thermal Capacitance-Coefficients of Capacitors by a Direct-Reading Device (Izmereniye temperaturnykh ko-effitsiyentov yemkosti kondensatorov ustroystvom s neposredstvennym otschetom)

PERIODICAL: "Izmeritel'naya Tekhnika", No 5, Sep-Oct 1957, pp 61-64 (USSR)

ABSTRACT: The article deals with instruments for measuring the capacitance variations of radio capacitors with their temperature. In such instruments as produced in USSR, namely the "TKE-1", "TKE-2" and "TKE-3", the change of capacitance in the capacitors is compensated by the change of capacitance in the contour of the measuring generator, and they require long computations. To eliminate this disadvantage and to enable a direct reading of the temperature capacitance factor, it was suggested to utilize in the oscillating circuits of two generators with variable frequency, matched variable capacitors, the capacitance of which is an exponential function of the rotating angle. Analysis is made of all possible causes of measurement errors and the conclusion is made that the accuracy of the suggested instrument may be higher than of the existing instruments.

Card 1/2

115-5-27/44

· Measuring the Thermal Capacitance-Coefficients of Capacitors by a Direct-
· Reading Device

There are 2 schematic diagrams and 2 references (both Russian)

AVAILABLE: Library of Congress

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VAYNDRAKH, R. I.

ca

110

Agglutinins in protein fractions of Shiga dysentery so-
rum. V. I. Vashkov and R. I. Vayndrakh. *Zhur. Mikro-
biol., Epidemiol. Immunobiol.* 1947, No. 8, 51-5. —The
agglutinin is in the englobulin fraction pptd. by 30-36°C
(NH₄)₂SO₄. H. L. Williams

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

VAYNDRAKH, R. L., Physician

Cand. Med. Sci.

Dissertation: "Antigenic and Immunogenic Properties of the Synergetic
Diphtheria-Typhoparatyphoid Vaccine in Experiments with
Animals."

27/2/50

Second Moscow State Medical Inst. imeni

I. V. Stalin

SO Vecheryaya Moskva
Sum 71

VAYNDRUKH, A.A.

Rupture of the abdominal aorta in atheromatosis, simulating paranephritis. Urologiia no.1:79-81 Ja-Mr '55. (MLRA 8:10)

1. Iz urologicheskogo otdeleniya (zav. G.A.Mukhina) Khar'kovskoy gorodskoy klinicheskoy bol'nitsy (glavnyy vrach A.M.Lomonosov) i kafedry urologii (zav. prof. G.Ya.Alapin) Ukrainskogo instituta usovershenstvovaniya vrachey.

(AORTA, diseases,
atheromatosis with rupt.simulating paranephritis)
(ARTERIOSCLEROSIS,
atheromatosis of aorta with rupt. simulating
paranephritis)
(KIDNEYS, diseases
paranephritis, differ.diag.from aortic rupt. in
atheromatosis

VAYNDRUKH, A.A.

Hypernephroid cancer of the kidney with metastases to the bladder.
Urologiia, 22 no.1:67-68 Ja-F '57 (MLRA 10:5)

1. Iz kafedry urologii (zaveduyushchiy-professor G.Ya. Alapin)
Ukrainskogo instituta usovershenstvovaniya vrachey (direktor-dotsent
I.I. Ovayenko) i urologicheskogo otdeleniya 2-y klinicheskoy bol'nitsy
(glavnyy vrach G.A. Mukhina).

(KIDNEYS, neoplasms

hypernephroma, metastases to bladder, surg.)

(BLADDER, neoplasms

hypernephroma, metastatic from kidney, surg.)

ALAPIN, G.Ya.; VAYNDRUKH, A.A.

[Organization of the work in cystoscopy and a concise methodology
for urological investigations; manual for physicians and students]
Organizatsiia raboty v tsistoskopicheskoi i kratkaia metodika uro-
logicheskikh issledovani; rukovodstvo dlia vrachei i studentov.
Khar'kov, 1959. 43 p. (MIRA 14:7)
(BLADDER—EXPLORATION) (UROLOGY)

WAV'ERUKH, S. A.

36451 O Klassifikatsii Khronicheskikh Verkhushhechnykh Parodontitov. Stomatologiya,
1949, No. 4, S. 8-13

SO: Letopis' Zhurnal'nykh Statey, Vol. 49, Moskva, 1949

VAYNDRUKH, S.A.

Practical considerations on the roentgenologic aspect of
cystic formations of the jaws. Stomatologiia, Moskva no.3:37-40
1951. (CIML 21:1)

1. Docent. 2. Khar'kov Medical Stomatological Institute
(Director -- P. V. Vlasenko).

VAYNDRUKH, S.A., dotsent.

Discussion on roentgenologic diagnosis of chronic apical
periodontitis. Stomatologiya no.5:22-25 '53. (MIRA 7:1)

1. Iz Khar'kovskogo meditsinskogo stomatologicheskogo instituta
(direktor - dotsent G.S.Voronyanskiy).
(Diagnosis, Radioscopic) (Mouth--Diseases)

VAYNDRUKH, S.A., dotsent (Khar'kov)

Data from X-ray examinations of so-called local fibrous
osteodystrophy and giant cell tumors of the jaws (osteoblastoclastoma)
Probl. stom. 3:321 '56 (MLRA 10:5)
(JAWS--TUMORS)

VAYNDRUKH, S.A.

Roentgenologic data on chronic odontogenic osteomyelitis of the
jaws. Vest. rent. i rad. 32 no.1:14-15 supplement '57

(MLRA 10:5)

1. Iz Khar'kovskogo meditsinskogo stomatologicheskogo instituta.
(JAWS, dis.
osteomyelitis, chronic odontogenic, x-ray diag.)
(OSTEOMYELITIS, diag,
jaws, chronic odontogenic, x-ray diag.)

VAYNDRUKH, S.A. (Khar'kov)

Structural types of the spongy bone tissue of the alveolar
processes in normal state and paradentosis. Probl.stom. 6:
42-47 '62. (MIRA 16:3)
(GUMS—DISEASES) (BONE)

FRIDMAN, Ya.L., dots. (Khar'kov); VAYNDRUKH, S.A., dots. (Khar'kov);
REUSOVA, Ye.P., kand.med.nauk (Khar'kov)

Clinical and radiological investigation of the condition of the
periodontium in students of the Kharkov Medical Stomatological
Institute, Probl.stom. 4:179-183 '58. (MIRA 13:6)
(GUMS--DISEASES)

VAYNDRUKH, S.A.

Determination of the age in children from 5 to 10 years old
based on X-ray examination of the developmental state of teeth.
Sud.-med. eksp. 8 no. 3:20-24 J1-S '65. (MIRA 18:9)

1. Kafedra rentgenologii i radiologii (zav.- prof. V.S. Brazhnev)
Khar'kovskogo meditsinskogo stomatologicheskogo instituta.

BELOGORODSKIY, V.A.; VAYNER, A.A.; SEREBRIN, I.Ya.

[Guide to boring and blasting operations in the making of exploratory boreholes] Rukovodstvo po burovzryvnym rabotam pri prokhodke gornorazvedochnykh vyrabotok. Sost. V.A.Belogorodskii, A.A.Vainer, I.IA.Serebrin. Moskva, Izd-vo "Nedra," 1964. 231 p. (MIRA 17:6)

1. Vsesoyuznyi nauchno-issledovatel'skiy institut metodiki i tekhniki razvedki.

VAYNER, Aleksandr Aleksandrovich; REMOROV, Anatoliy Sergoyevich;
KAN, A.V., spots. red.; MITINA, I.I., red.

[Experience in the mechanization and intensification of
the freezing of small fish species] Opyt mekhanizatsii i
intensifikatsii zamorazhivaniia melkikh porod ryb. Mo-
skva, Rybnoe khoziaistvo, 1963. 37 p. (MIRA 17:9)

VAYNER, A.G.

Measuring tank designed by D.D. Kortoev. Spirt.prom. 20 no.3:
37-38 '54. (MIRA 7:10)
(Tanks)

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES WELLS 100 AND 4TH ORDERS

VAYNER, A. L.
SA

B 64

Investigation on earth connections in poorly conducting soils. VAYNER, A. L., POTUZHNIK, A. K., AND FRATK, S. M. *Elektrichesvo* (No. 2) 40-7 (1947) in Russian.

Novel methods of measuring current, time and VA characteristics of pulses to earth by means of special multibeam oscilloscopes are described. Tubular, ring and extended steel wire earthing connectors are treated, and their "pulse coefficients" plotted against several variables (soil conductivity, earthing current density, etc.). Multi-electrode earthing systems are also discussed, and improved earthing arrangements for general cases are indicated. A. L.

ASB-SEA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES WELLS 100 AND 4TH ORDERS

PLANNER A!

Vayner, Abram L'vovich; MILYAKH, Aleksandr Nikolayevich [Miliakh, O.M.]

Vasyl' Mykhailovych Khrushchov. Kyiv, Vyd. Akad. nauk URSR, 1957.
(MIRA 14:10)

23 p.

(Khrushchov, Vasyl' Mykhailovych, 1882-1941)

8(3)

AUTHORS: Vayner, A. L., Fertik, S. M.

SOV/105-59-5-23/29

TITLE: All-Union Conference on Problems of Earthing (Vsesoyuznoye soveshchaniye po voprosam zazemleniy)

PERIODICAL: Elektrichestvo, 1959, Nr 5, pp 89-91 (USSR)

ABSTRACT: The 2nd All-Union Earthing Conference (the 1st was held in Khar'kov in 1941) was organized by the Khar'kovskiy politekhnicheskii institut imeni Lenina (Khar'kov Polytechnic Institute imeni Lenin), the Teploelektroproyekt (All-Union State Institute for the Design and Planning of Thermal Electric Power Plants) and the Khar'kovskoye pravleniye nauchno-tekhnicheskogo obshchestva energeticheskoy promyshlennosti (Khar'kov Administration of the Scientific-technical Society of Power Engineering Industry), and took place in Khar'kov from October 15 - 17, 1958. 255 delegates of universities, scientific research- and design institutes, the energoupravleniya sovnarkhozov (Power Engineering Administrations of the Council of National Economy), the byvshaye Ministerstvo elektrostantsiy (former Ministry of Electric Power Plants), the Gosudarstvennyy nauchno-tekhnicheskii komitet Soveta Ministrov SSSR (State Scientific Research Com-

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All-Union Conference on Problems of Earthing

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mittee of the Council of Ministers of the USSR), electrical-assembling organizations and industrial enterprises attended the Conference. President of the organizing committee for the Conference was L. I. Sirotinskiy. 25 reports were delivered, 43 persons took part in the discussions. A. V. Korsuntsev (Nauchno-issledovatel'skiy institut postoyannogo toka (Direct Current Scientific Research Institute)) established the foundation for the calculation of individual lightning protection earthing on the basis of two criteria ascertained by him for the physical similarity of the processes in lumped ground electrodes at the discharge of the pulsed current (Ref. 1). Ye. Ya. Ryabkova (Moskovskiy energeticheskiy institut (Moscow Power Engineering Institute)) reported on the results of calculations carried out according to the data of hemispherical tubular and straight ground electrodes, which were obtained by laboratory tests. T. Yu. Mogilevskaya (Tomskiy politekhnicheskii institut (Tomsk Polytechnic Institute)) brought a calculation of the pulse motion along a perpendicular insulated line and the calculation of the transition of the pulse motion into the semiconductor medium. A. L. Vayner reported on the investigations on a calculating model and, in part, in

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the field of complicated earth systems of open high-voltage distribution plants. V. N. Floru showed in his report that in technical calculations of the pulse resistances of straight ground electrodes one can operate, in many cases, with the parameters R, L and C invariable along the ground electrode, as well as with the mean value of G. S. M. Fertik reported on the results of investigations in the laboratory and in the field if overvoltages arise at the insulation of electrical plants at the discharge of current of the direct lightning stroke at the earth connections of these plants. A. N. Sherentais (Teploelektroproyekt) described the experience gained in projecting ground connections for electric transmission lines. B. M. Podkletnov (Kuybyshevskaya otdeleniye Elektroproyekta (Kuybyshev Branch of the Elektroproyekt)) recommended the use of sunk ground electrodes of various types for the supports of electric transmission lines at specific resistances of the ground of $\rho < 3.5 \cdot 10^4$ ohm/cm. A. M. Karamzin (Sverdlov-energo) reported that during 5 years of operation not one break occurred during thunderstorms in the 220-kv lines with a length of 330 km which are protected by wire ropes on their whole length, and the supports of which have earth connections with resistances of under 10 ohm. A. Ya. Rozental' (Khar'kov-

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energo) spoke on the same subject. A. Ya. Kofner confirmed in his report the great importance of the quality of earthing of supports for the reliability of operation of lines. M. V. Kostenko (Leningradskiy politekhnicheskii institut (Leningrad Polytechnic Institute)) reported on the discussion of problems of lightning protection earthing at the Conférence Internationale des Grands Réseaux Électriques à Haute Tension in Paris in June 1958. A. S. Maykopar (Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki (All-Union Scientific Research Institute of Electric Power Engineering)) and S. A. Sokolov (Tsentral'nyy nauchno-issledovatel'skiy institut svyazi (Central Communications Scientific Research Institute)) declared themselves for the use of metal fittings on reinforced-concrete supports on the condition of a good electric connection between the individual elements of the fittings as earth arresters of the sunk ground electrodes. L. A. Dubinskiy (Leningradskoye otdeleniye Gidroproyekta (Leningrad Branch of the Gidroproyekt)), A. N. Sherentsis and V. M. Kozlov (Town of Zlatoust) emphasized that the sunk ground electrodes are only efficient at certain values of specific electric conductance of the soil. V. Ye. Sablin (Kuybyshevskoye otdeleniye Elektroproyekta (Kuybyshev Branch of the Elektroproyekt)) expressed his opinion that

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All-Union Conference on Problems of Earthing

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the reinforced-concrete foundations of the supports can be used as ground electrodes. N. V. Lisitsin (Perm'energo) took part in the discussion. I. F. Polovoy (Leningradskiy politekhnicheskii institut (Leningrad Polytechnic Institute)) represented the point of view that - as experience made inland and abroad in operating lines with overhigh voltage show - the cooperation of good earth connections, automatic reconnection and switches limiting the overvoltages in automatic reconnection is necessary to guarantee full resistance to thunderstorms. A. B. Oslon (Perm'energo) spoke on the necessity of carefully measuring the resistance to spreading out in case of sunk ground electrodes. F. A. Likhachev (ORGRES) confirmed the opinion of S. M. Fertik on the outstanding importance of the valve dischargers to protect the insulation of open distribution plants from overvoltages. A. Yu. Simanovskiy (Giprosel'elektro) pointed out that it is not clear up to now how animals should be protected from the voltage gradient in the soil at lightning strokes into the lightning arresters near stockyards. M. Ya. Boguslavskiy (Khar'kov) referred to the insufficient solution of problems of lightning protection in industrial buildings. I. F. Polovoy pointed out that very few data are available on the front length and the steepness

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All-Union Conference on Problems of Earthing

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of the lightning current. V. Ye. Sablin spoke on the necessity of a better recording of operation troubles in electric transmission lines due to thunderstorms, and simultaneously evaluating the action of ground electrodes. V. M. Kadrin spoke on the insufficient investigation of sunk ground electrodes. L. Ye. Ebin brought the results of an investigation of the thermal strength of ground electrodes which was carried out in the Vsesoyuznyy institut elektrifikatsii sel'skogo khozyaystva (All-Union Scientific Research Institute for Rural Electrification)). A. B. Oslon (Perm'energo) brought a method of calculating multiple ground electrodes on the basis of Maxwell equations. N. A. Korzh (Ukrgidep) suggested to make extensive use of the many natural ground electrodes available in hydroelectric power stations. V. V. Petrov (Ivanovo) suggested to standardize the amount of the admissible transition resistance of the contacts in earth connections. R. G. Zil'berman and V. N. Vozhzhnikov reported on the experience made in projecting, building and operating ground connections in the areas of permanent frost. M. R. Nayfel'd (Tsentroelektromontazh) brought data which confirmed the utility of the standardization of R-values of ground connections established by the regulations. D. I. Mikhaylov (Novocherkasskiy poli-

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tekhnicheskii institut (Novocherkassk Polytechnic Institute)) brought the data of eight years of observations of the changes of specific resistance of different soil layers, and the correction coefficients for the calculating values of ρ obtained on the basis of the same. A. T. Akimov (Institut merzlotovedeniya Akademii nauk SSSR (Institute of Permafrost of the Academy of Sciences USSR)) reported that in areas with permanently frozen rock soil there are generally many thawed spots between the hard-frozen masses where the ground electrodes can be laid. A. M. Tylechkin (Magadanskiy sovnarkhoz (Magadan Council of National Economy)) emphasized the special importance of measures to reduce the values of E_{prk} and E_{sh} for earth connections in areas with permanent frost soil. F. A. Likhachev represented the point of view that outlying ground connections which are suggested for soils with small χ cannot offer any security and that systems with an insulated neutral conductor and with arc quenchers are most efficient. B. M. Kostrzhitskiy and I. P. Andreyeva pointed out that the problems of earthing for portable devices which are used in open-work mines and mobile power stations and substations are insufficiently worked out. A. I. Kuznetsov, A. I. Sandler,

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P. N. Novikov, M. R. Nayfel'd et al pointed out the necessity of including in the prescriptions for the building of electro-technical plants special regulations on earth connections in areas of permanent frost and particularly heavy soils, and of improving the terminology contained in these prescriptions on the basis of experience made. There is 1 Soviet reference.

ASSOCIATION: Khar'kovskiy politekhnicheskii institut im. Lenina
(Khar'kov Polytechnic Institute imeni Lenin)

Card 8/8

SPOKOYNTY, Yu.Ye., inzh.; VAYNER, A.L., inzh.; CHAPLIK, Z.M., inzh.

Semiconductor thermostat for radioelectronic systems. Khol. tekhn.
i tekhn. no.1:16-18 '65. (MIRA 18:9)

VAYNER, A.L., dotsent, kand.tekhn.nauk

Current flow from reinforced concrete foundations of electric power transmission line towers. Elektrichestvo no. 12:34-40
D '60. (MIRA 14:1)

1. Khar'kovskiy politekhnicheskii institut imeni Lenina.
(Electric lines—Poles) (Electric leakage)

VAYNER, A.L., kand. tekhn. nauk; SHERENTSIC, A.N., inzh.

Grounding systems of 110 to 500 kv. electric power transmission
lines. Elek. sta. 32 no.1:78-85 Ja '61. (MIRA 16:7)

(Electric lines—Overhead)
(Electric currents—Grounding)

VAYNER, A.L., dotsent; FERTIK, S.M., dotsent; FLORU, V.N., dotsent

Lightning protection of branching trolleybus contact network lines. Izv. vys. ucheb. zav.; energ. 7 no.8:23-31 Ag '64.

(MIRA 17:12)

1. Khar'kovskiy politekhnicheskoy institut imeni V.I.Lenina. Predstavlena kafedroy peredachi elektricheskoy energii.

VAYNER, A.L., kand. tekhn. nauk; VOLKOV, V.P., inzh.; TUCHIN, V.I., inzh.

Grounding of electric current in reinforced concrete
towers. Elek. sta. 35 no.2:61-66 F '64. (MIRA 17:6)

VAYNER, A.S.

ZAYTSEV, B.M.; ~~VAYNER, A.S.~~; BELYAYEVSKIY, I.A.; SAPIRO, M.M.;
BORISEVICH, S.F.

Heat economy at the Leningrad Hydrolysis Plant. Gidroliz. i
lesokhim. prom. 10 no.7:18-20 '57. (MIRA 10:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut godroliznoy i
sul'fitnospirovoy promyshlennosti (for Zaytsev, Vayner)
2. Leningradskiy gidroliznyy zavod (for Belyayevskiy, Sapiro,
Borisevich).

(Leningrad--Hydrolysis)

KOROL'KOV, I.I.; ZAYTSEV, B.M. [deceased]; SHARKOV, V.I.; VAYNER, A.S.; EFROS, I.N.; EFROS, V.A.; BUBNOVA, N.I.

Percolation hydrolysis with a variable flow of liquid. Gidroliz.
i lesokhim.prom. 14 no.2:10-14 '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti (for Korol'kov, Zaytsev, Sharkov, Vayner).
2. Segezhskiy gidroliznyy zavod (for I. Efros, V. Efros, Bubnova).
(Hydrolysis) (Percolation) (Wood-Chemistry)

VAYNER, Arkadiy Moiseyevich; FEL'DMAN, S.S., red.; VARGANOVA, A.N.,
red.izd-va; LELYUKHIN, A.A., tekhn.red.

[Care of the hair] Ukhod za volosami. Moskva, Izd-vo M-va
kommun.khoz.RSFSR, 1959. 68 p. (MIRA 13:3)
(Hair--Care and hygiene)

ACC NR: AP6021467

(N)

SOURCE CODE: UR/0413/66/000/011/0087/0087

INVENTOR: Bondarenko, R. M.; Orlov, S. V.; Vayner, E. A.

ORG: None

TITLE: A device for studying flow in a shock tube. Class 42, No. 182372

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 87

TOPIC TAGS: shock tube, flow analysis, aerodynamic R and D

ABSTRACT: This Author's Certificate introduces a device for studying flow in a shock tube. The unit contains a probe with pressure gauges, a specially shaped stand with guides for moving the tube, and a worm-gear speed reducer in this stand with an electric drive. The device is designed for determining flow uniformity in a supersonic shock tube. The probe is made in the form of two telescoping tubes with the outer tube mounted in the guides of the stand. A toothed rack fastened to this tube is used for connection to the electrically driven worm-gear speed reducer. The pressure gauges are connected to the readout instruments by telescoping tubes (e. g. copper tubing) with a sliding fit and sealing devices.

SUB CODE: 13, 20/ SUBM DATE: 06Jan65

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UDC; 620.176

ACC NR: AP6034127

(A, N)

SOURCE CODE: UR/0325/66/000/004/0080/0084

AUTHOR: Malygin, A. M.; Vayner, E. N.

ORG: none

TITLE: Cardioplegia induced by cooling with hypothermia of the brain

SOURCE: Nauchnyye doklady vysshey shkoly. Biologicheskiye nauk, no. 4, 1966, 80-84

TOPIC TAGS: dog, electrocardiography, thoracic surgery, hypothermia, brain, blood circulation

ABSTRACT: The functional condition of the myocardium subjected to the direct action of cooling combined with hypothermia of the brain was investigated in two experimental series staged on 26 dogs ages 2 to 6 yrs. Cardioplegia was induced in the first series with blood circulating through the heart and in the second series with blood circulation bypassing the heart. Brain hypothermia was induced by a specially constructed apparatus operating on freon 12. Anesthetics administered to the animals were thiopental sodium and ether oxygen. Body temperature of animals was lowered to 32 to 30°C, brain temperature was lowered to 28.7 to 25.6°C and heart temperature by this time was lowered to 32.5 to 31°C. The chest was opened in the 4th to 5th intercostal region and cardioplegia was induced by filling the pericardial cavity with sterile ice and irrigating the heart surface with ethyl chloride. EKG's were recorded

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ACC NR: AP6034127

with FEKP-2 and VEKPS-2 model electrocardiographs before and after the thoracotomy. Findings show that heart arrest is faster and more effective with cooling when the blood circulation bypasses the heart. With cooling of the heart and subsequent warming, the hemodynamic indices show that the heart maintains a high potential reserve. With weakening of the automatic function and slowed down conductivity, duration of the membrane potential increases in the restorative period. The described method of cooling the heart combined with hypothermia of the brain ensures reversible heart arrest for a 1 hr. period. This paper is recommended by the Department of Human and Animal Physiology of the Vladimir Pedagogical Institute. Orig. art. has: 3 figures.

SUB CODE: 06/ SUBM DATE: 24Mar65/ ORIG REF: 003/ OTH REF: 011

Card 2/2

ERLIN, L. S.; VALER, G. Ye.

Mbr., Machine Tool Plant imeni Lenin (-1945-)

"Vibration of Boring Bars on Diamond Boring Machines," Stanki I Instrument, 16, Nos. 7-8, 1945

BR-52059019

VAYNER, I., inzh.; BELOV, V., inzh.; AFANAS'YEV, A. (g.Lenigrad);
BRASLAVSKIY, A. (g.Lenigrad); PANFILOV, A., instrumental'shchik
(g.Berdyansk); VOLKOV, I. (Tashkent)

Suggested, created, introduced. Izobr. i rats. no.6:12-13 Je '61.
(MIRA 14:6)

1. Zavod "Penzkhimmash" (for Vayner, Belov).
(Technological innovations)

VAYNER, I.B.

Orthodontic crowns with small projections. Stomatologiya 37
no.5:11 S-0 '58 (MIRA 11:11)

1. Iz otdeleniya ortopedicheskoy stomatologii Chelyabinskoy
gorodskoy klinicheskoy bol'nitsy.
(DENTAL PROSTHESIS)

VAYNER, I.I., inzh.; BELOV, V.V., inzh.

Specialized machine for knurling ridges. Khim. mash. no.4:38-39
Jl-Ag '61. (MIRA 14:8)
(Chemical engineering--Equipment and supplies)

VAYNER, I.L.
ZASLAVSKIY, G.I.; VAYNER, I.L.

Pneumatic controllers, signals, and liquid level indicators put
out by the "Lenneftekip" factory. Trudy LO NTO Priborprom, no.3:
133-163 '56. (MLRA 10:8)

(Liquid level indicators)